Task 1

**Objective: User Input**

Write a program that takes 3 values from user. Two values of integer and one value of float data type. Print each result.

#include <iostream>

using namespace std;

int main( )

{

int num1,num2;

float num3;

cout<<"Enter First Integer Number: ";

cin>>num1;

cout<<"Enter Second Integer Number: ";

cin>>num2;

cout<<"Enter Float Number: ";

cin>>num3;

cout<<"-----------------------"<<endl;

cout<<"Your First Integer Number is "<<num1<<endl;

cout<<"Your Second Integer Number is "<<num2<<endl;

cout<<"Your Float Number is "<<num3<<endl;

system ("pause");

return 0;

}

Task 2

**Objective: Arithmetic Operations**

Write a program that gets 2 integers input from user and store them in variables. Do the five basic Arithmetic Operations (+ , - , \*, /, %) of the two numbers. Print the results of operations as below

#include<iostream>

using namespace std;

int main()

{

int a, b;

float c;

cout<<"Enter first integer number : " ;

cin>>a;

cout<<"Enter second integer number : " ;

cin>>b;

c = a + b ;

cout<<"a + b = "<<c<<endl;

c = a - b ;

cout<<"a - b = "<<c<<endl;

c = a \* b ;

cout<<"a x b = "<<c<<endl;

c = float(a) / float(b) ;

cout<<"a / b = "<<c<<endl;

c = a % b ;

cout<<"a % b = "<<c<<endl;

system("pause");

return 0;

}

Task 3

**Objective: Percentage**

Write a program that prompt user to input course name, obtained marks and total marks. Calculate the percentage using this formula

*marks percentage = marks obtained / total \* 100* and display the results as follows

#include <iostream>

#include <string>

using namespace std;

int main()

{

int obt\_marks, tot\_marks;

string cour\_name;

float mark\_perc;

cout<<"Enter course name : ";

cin>>cour\_name;

cout<<"Obtained marks : ";

cin>>obt\_marks;

cout<<"Total marks : ";

cin>>tot\_marks;

mark\_perc = float(obt\_marks) / float(tot\_marks) \* 100 ;

cout<<"\nIn "<< cour\_name <<" course. You have secured %"<<mark\_perc<<endl;

cout<<"\n------------------------------------------"<<endl;

cout<<"Course name is "<<cour\_name<<endl;

cout<<"Obtained marks is "<<obt\_marks<<endl;

cout<<"Total marks is "<<tot\_marks<<endl;

mark\_perc = float(obt\_marks) / float(tot\_marks) \* 100 ;

cout<<"My mark percentage is "<<mark\_perc<<endl;

cout<<"In "<< cour\_name <<" course. You have secured %"<<mark\_perc<<endl;

system("pause");

return 0;

}

Task 4

**Objective: Calculating Value of X**

Write a program that finds the value of X by using given formula. Take values of a and b from user.

*X = (a + b)2 – 2ab*

#include <iostream>

using namespace std;

int main()

{

int a, b, X;

cout<<"Enter a value : ";

cin>>a;

cout<<"Enter b value : ";

cin>>b;

cout<<"Formula of X is \nX = (a + b) \* 2 - 2\*a\*b "<<endl;

X = (a + b) \* 2 - 2\*a\*b;

cout<<"x="<<X<<endl;

system("pause");

return 0;

}

Task 5

**Objective: Circle calculations**

Write a program to calculate area, diameter and circumference of circle by using following formulae. Use Const and #define for value of .Radius will be given by user

*Area*

*Diameter =2\*r*

*Circumference=r*

#include <iostream>

using namespace std;

int main()

{

float rad, dia, area, circ, pi;

pi = 3.14;

cout<<"Enter radius : ";

cin>>rad;

cout<<"\nRadius is "<<rad<<endl;

area = pi \* rad \*rad;

cout<<"\ncircle of area is "<<area;

dia = 2 \* rad;

cout<<"\ncircle of diameter is "<<dia;

circ = 2 \* pi \* rad;

cout<<"\ncircle of circumference is "<<circ<<endl;

system("pause");

return 0;

}

Task 6

**Objective: User Data**

Write a program that plays a word game with the user. The program should ask the user to enter the following:

User’s name Year of birth (e.g. 1990) Name of university A favourite hobby A pet’s name .

Write a program that will produce an output as below:

#include <iostream>

#include <string>

using namespace std;

int main()

{

string name, uni\_name, hobby, pet;

int y\_age, yob, curr\_year;

cout<<"What is your name : ";

cin>>name;

cout<<"Enter your year of birth : ";

cin>>yob;

cout<<"Name of University : ";

cin>>uni\_name;

cout<<"Favourite hobby : ";

cin>>hobby;

cout<<"Pet name : ";

cin>>pet;

curr\_year = 2015;

y\_age = curr\_year-yob;

cout<<" "<<endl;

cout<<"---------------------------------------------"<<endl;

cout<<"There lives a person named "<<name<<" who is currently \n"<<y\_age<<" of age.";

cout<< name<<" is studying at "<<uni\_name<<" university.";

cout<<"\nIt is interesting because "<<name<<" likes to read with "<<pet<<"\nand they lived

happily ever after!"<<endl;

system("pause");

return 0;

}